

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 1, 2, 12, 13, 24, 25, 35, 36 and 47 have been amended. Claims 1-47 are pending and under consideration.

GROUND FOR ENTRY OF THIS RESPONSE PURSUANT TO 37 C.F.R. 1.116

The Applicants respectfully request entry of this Rule 116 Response because it is believed that the amendment of claims 1, 2, 12, 13, 24, 25, 35, 36 and 47 puts these claims into condition for allowance. These amendments were not earlier presented because the Applicants believed in good faith that the cited prior art did not disclose the present invention as previously claimed.

CLAIM REJECTION – 35 USC 102

Claims 1-47 were rejected under 35 USC 102(b) as being anticipated by Nelson et al. (US 6,723,174) (hereinafter "Nelson").

Nelson discloses an automated semiconductor processing system. In one embodiment of Nelson, at each pallet position, an optical sensor 72 detects the presence or absence of a pallet 710 via detecting the presence or absence of reflected light. In addition, at each pallet position A-J, the x-axis sensor pair 690 detects the presence or absence of a cassette 88. Specifically, the infrared transmitter 692 projects a light beam vertically upwardly. The light beam passes through the x-axis transmitter prism 714, on each pallet 710, which bends the light beam 90 degrees, so that the light beam is then projected horizontally inwardly towards the x-axis detector prism 716. If a cassette 88 is present on the pallet 710, the light beam will be blocked by the cassette 88, and the x-axis detector 694 will not detect any infrared light, indicating presence of a cassette 88. On the other hand, if the pallet 710 has no cassette 88 on it, infrared light from the transmitter 692 passes through the x-axis transmitter prism 714, passes over the pallet 710, and is redirected downwardly by the x-axis detector prism 716, so that the infrared light is directed to and detected by the x-axis infrared detector 694, indicating the absence of a cassette 88. Nelson, 14:18-14:40 and Figure 31.

Further in Nelson, the y-axis sensor pair 696 works in a similar way, to detect the presence or absence of wafers in the cassette 88. With a cassette 88 on a pallet 710, infrared light from the y-axis transmitter 698 is projected vertically upwardly, and is turned 90 degrees by

the y-axis transmitter prism 718, so that the light projects through a slot or tunnel 725 at the bottom of the cassette 88. If no wafers or other flat media are present in the cassette 88, the light travels entirely through the tunnel 75, is redirected downwardly by the y-axis detector prism 720, and is detected by the y-axis detector 700, indicating absence of any wafers in the cassette 88. If a wafer is in the cassette 88, the bottom edge of the wafer projects downwardly through the tunnel 725, preventing light from passing through the tunnel. Accordingly, the presence of any wafer in the cassette 88 will block the light from the y-axis transmitter 698, so that the y-axis detector 700 detects no light, indicating presence of at least one wafer in the cassette 88. Nelson, 18:41-18:58 and Figure 31.

Claims 1-11

Amended claims 1 and 2 recite, in part, a first robot having an articulated arm and a hand at a distal end of the arm, for holding and taking out a container containing objects positioned therein by said hand from the first process, and for conveying and positioning the held container by said arm at a predetermined position..." Support for this amendment may be found in at least Figure 1.

In the Office Action, the Examiner relies on the elevator 900 in Nelson as the first robot recited in claims 1 and 2 and the transfer robot 970 as the second robot. In contrast to claims 1 and 2, the elevators 900 of Nelson merely transport the pods 815 in vertical directions by lifting and lowering the engager plates 910 engaging with the pods 815 between the conveyor 902 and the docking station 828. As such, the elevator 900 of Nelson is hardly a robot having an articulated arm and a hand at the end of the robot as is recited in amended claims 1 and 2.

Claims 3-11 depend on claims 1 or 2 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejection is requested.

Claims 12-23

Amended claims 12 and 13 recite, in part, a first robot having an articulated arm and a hand at a distal end of the arm, for holding and taking out a container by said hand from the second process, and for carrying and positioning the held container by said arm at a predetermined position. Support for this amendment may be found in at least Figure 1.

In the Office Action, the Examiner relies on the elevator 900 in Nelson as the first robot

recited in claims 12 and 13 and the transfer robot 970 as the second robot. In contrast to claims 12 and 13, the elevators 900 of Nelson merely transport the pods 815 in vertical directions by lifting and lowering the engager plates 910 engaging with the pods 815 between the conveyor 902 and the docking station 828. As such, the elevator 900 of Nelson is hardly a robot having an articulated arm and a hand at the end of the robot as is recited in amended claims 12 and 13.

Claims 14-23 depend on claims 12 or 13 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejection is requested.

Claims 24-34

Amended claims 24 and 25 recite, in part, holding and taking out a container containing objects from the first process, and conveying and positioning the held container at a predetermined position within an operation range of a second robot, using a first robot having an articulated arm and a hand at a distal end of the arm. Support for this amendment may be found in at least Figure 1.

In the Office Action, the Examiner relies on the elevator 900 in Nelson as the first robot recited in claims 24 and 25 and the transfer robot 970 as the second robot. In contrast to claims 24 and 25, the elevators 900 of Nelson merely transport the pods 815 in vertical directions by lifting and lowering the engager plates 910 engaging with the pods 815 between the conveyor 902 and the docking station 828. As such, the elevator 900 of Nelson is hardly a robot having an articulated arm and a hand at the end of the robot as is recited in amended claims 24 and 25.

Claims 26-34 depend on claims 24 or 25 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejection is requested.

Claims 35-46

Amended claims 35 and 36 recite, in part, holding and taking out a container from the second process, and for conveying and positioning the held container at a predetermined position using a first robot having an articulated arm and a hand at a distal end of the arm. Support for this amendment may be found in at least Figure 1.

In the Office Action, the Examiner relies on the elevator 900 in Nelson as the first robot

recited in claims 35 and 36 and the transfer robot 970 as the second robot. In contrast to claims 35 and 36, the elevators 900 of Nelson merely transport the pods 815 in vertical directions by lifting and lowering the engager plates 910 engaging with the pods 815 between the conveyor 902 and the docking station 828. As such, the elevator 900 of Nelson is hardly a robot having an articulated arm and a hand at the end of the robot as is recited in amended claims 35 and 36.

Claims 37-46 depend on claims 35 or 36 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejection is requested.

Claim 47

Amended claim 47 recites, in part, a first robot having an articulated arm and a hand at a distal end of the arm, to hold and convey the container to a predetermined position. Support for this amendment may be found in at least Figure 1.

In the Office Action, the Examiner relies on the elevator 900 in Nelson as the first robot recited in claim 47 and the transfer robot 970 as the second robot. In contrast to claim 47, the elevators 900 of Nelson merely transport the pods 815 in vertical directions by lifting and lowering the engager plates 910 engaging with the pods 815 between the conveyor 902 and the docking station 828. As such, the elevator 900 of Nelson is hardly a robot having an articulated arm and a hand at the end of the robot as is recited in amended claim 47.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: Gregory W. Harper
Gregory W. Harper
Registration No. 55,248

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501